

Vertical motor requirements specification

Item	Unit	Offered	Remark
Type of motor		Asynchronous motor	3 phases
Type of vertical shaft		Hollow /Solid	
Nominal output		186.5 kW / 250HP	
Phase connection		Δ / Y	
Duty Type		S1	
Poles		4	
Service factor		1.15	
Nominal voltage		400/690V $\pm$ 10% 50Hz $\pm$ 2%	
Nominal current	A	312/180	
Locked rotor current		6.5xIn	
No load current	A	88/50	
Nominal motor torque	Nm	1195	
Breakdown torque		2.5xMn	
Locked rotor motor torque		1xMn	
Cos ϕ (PF):	115 % load	0.9	
	100 % load	0.9	
	75 % load	0.89	
	50 % load	0.84	
Efficiency:	115 % load	% 95.8	
	100 % load	% 95.9	
	75 % load	% 96.0	
	50 % load	% 95.3	
Synchronous / rated speed	rpm	1500/1490	
Kind and class of insulation		F VPI	
Ambient temperature	$^{\circ}\text{C}$	Min -10 $^{\circ}\text{C}$ Max+40 $^{\circ}\text{C}$	
Temp. rise of winding, Continuous duty at 40 $^{\circ}\text{C}$ ambient temp.		B	
Winding temp. elements: - No. & Type		6xPT100	
Upper bearing temperature elements:		1xPT100	3 lead
Down bearing temperature elements		1xPT100	3 lead
Over voltage protection for PT100		No	



Item	Unit	Offered	Remark
Surge arresters in main power box "Zork"		No	
Space Heater	W	2x200	230V
Starting method		VFD	
Operation with frequency converter		Yes	
Plate for vibration switch		Yes	
Material of rotor		Copper	
Non-Reverse Ratchet		Yes	
Area classification		Not hazardous	
Nominal bearing down thrust	TON	3	
Thrust Bearing lubrication		Oil	
Thrust Bearing cooling		Air	
Thrust Bearing type		29330E	
Guide Bearing lubrication		Grease	
Guide Bearing cooling		Air	
Guide Bearing type		6220-C3	
Enclosure		WPII	
Motor frame	mm	CHS355	
Mounting		V1	
Protecting "skirt" for shaft		No	only for transportation
Rabbit diameter AK	inch	22	
Bore diameter BX (VHS motor)	inch	1.687	
Direction of rotation viewed from Upper side		CCW	
Methods of cooling (IC Code)		IC01	
Motor height	mm	1934	
Main power terminal box dimension	mm	440x660x270	
Manufacturer		Amppera	
Color (Std.,Epoxy,Other)		Standard	
Altitude	m	1000	
Quantity		2	

This document contains proprietary information of Amppera and is to be used for the Project and for the sole purpose for which it is furnished. The recipient or anyone on its behalf shall not be entitled to use the document, or any part thereof, for any other purpose without the prior written approval of Amppera. The recipient shall keep this document in strict confidence and shall not transfer, disclose or divulge it to any other person without the prior written approval of Amppera. Amppera is the sole owner of all intellectual property rights associated with this document and any future work product thereof.

According IEC60034 ED-14 2022

